

AMENDMENTS TO THE CLAIMS

List of Claims:

1. (Previously Presented) A fibre comprising polyolefin polymer, said fibre having the features:
  - i) a fibre/fibre friction of no more than 600 g;
  - ii) a spin finish consisting essentially of an aqueous emulsion of polysiloxanes, with at least 25% of the active content being polysiloxanes; and
  - iii) a fibre crystallinity of at least 50%.
2. (Original) A fibre according to claim 1 wherein the fibre/fibre friction is no more than 500 g.
3. (Original) A fibre according to claim 1 wherein the fibre/fibre friction is 200 to 600 g.
4. (Original) A fibre according to claim 1, wherein the spin finish consists essentially of an aqueous emulsion of polysiloxanes of at least 30% active content.
5. (Previously Presented) A fibre according to claim 4, wherein the spin finish is applied at a concentration of 2-15% wt/wt active content.

6. (Previously Presented) A fibre according to claim 4, wherein the spin finish level is 0.2 to 1% wt/wt with respect to the fibre.

7. (Original) A fibre according to claim 1, wherein the fibre crystallinity is at least 55% as measured by DSC or XRD.

8. (Original) A fibre according to claim 1, wherein the polyolefin polymer is a nucleated polymer.

9. (Previously Presented) A fibre according to claim 1, wherein the polyolefin polymer is a nucleated polymer, wherein the nucleating agent is selected from the group consisting of talc, metallic salts of aliphatic or aromatic carboxylic acids, branched polymers containing dendritic branches and minerals selected from the group consisting of chalk, gypsum, clay kaolin, mica, and silicates and compounds that are based on D-sorbitol.

10. (Original) A fibre according to claim 9, wherein the nucleating agent is talc.

11. (Original) A fibre according to claim 9, wherein the polyolefin polymer is a nucleated polymer, nucleated with 5000 to 10000 ppm of talc.

12. (Original) A fibre according to claim 1, wherein the polyolefin is selected from the group consisting of isotactic or syndiotactic polypropylene homopolymers, homo and copolymers of monoolefins such as ethylene, propylene, alphaolefins , 4-methyl-1-pentene and blends thereof, linear polyethylenes, high density polyethylene, low density polyethylene, and linear low density polyethylene and blends of the same.

13. (Original) A fibre according to claim 9, wherein the polyolefin is selected from the group consisting of homopolymer polypropylene and homopolymer polyethylene.

14. (Original) A fibre according to claim 9, wherein the polyolefin is homopolymer polypropylene.

15. (Original) A fibre according to claim 1 with a bulk of at least about 30 cm<sup>3</sup>/g.

16. (Original) A fibre according to claim 1, wherein the draw ratio is about 1:2 to 1:8.

17. (Original) A fibre according to claim 1 having an ST dtex value of 2 to 20 dtex.

18. (Previously Presented) A fibre according to claim 1 having a resilience of at least about 40%.

19. (Previously Presented) A fibre according to claim 1, wherein the polyolefin has a flexural modulus of at least 1500 MPa.

Claims 20-21 (Cancelled).

22. (Previously Presented) A fibre comprising polyolefin polymer according to claim 1, wherein the polyolefin polymer is a nucleated polymer, and said fibre has

- i) a fibre/fibre friction of no more than 600 g;
- ii) a spin finish consisting essentially of an emulsion of polysiloxanes;

iii) a draw ratio of at least 1:1.5 with a final fibre fineness of 2 to 10 dtex;

iv) a fibre crystallinity of at least 50%.

23. (Previously Presented) A non-woven material prepared from a polyolefin-based staple fibre as defined in any one of claims 1-19 and 22.

24. (Previously Presented) A non-woven material comprising polyolefin-based staple fibre, wherein the non-woven material has a bulk of at least 30 cm<sup>3</sup>/g and a resilience of at least 50%.

25. (Previously Presented) A non-woven material according to claim 24, wherein the non-woven material has a resilience of at least 55%.

26. (Previously Presented) A non-woven material according to any one of claims 24 to 25, wherein the nonwoven material has bulk of at least 35%.

27. (Currently Amended) A method of preparing a polyolefin-based fibre, said method characterised in the use of a nucleated polymer, a draw ratio of at least 1:1.5

with a final fibre dtex of 2 to 10 dtex., and a spin finish consisting essentially of an emulsion of polysiloxanes,  
with at least 25% of the active content being polysiloxanes.

28. (Previously Presented) A method according to claim 27, wherein the polymer is selected from polyethylene and polypropylene.

29. (Original) A method according to claim 27, wherein the draw ratio is 1:2 to 1:8.

Claim 30 (Cancelled)

31. (Currently Amended) A method according to claim 30 27, wherein the spin finish is applied at a concentration of 2-15% wt/wt active content.

32. (Currently Amended) A method according to claim 30 27, wherein the spin finish level is 0.2 to 1% wt/wt with respect to the fibre.

33. (Previously Presented) A method of preparing a non-woven material comprising the use of a fibre as defined

in any one claims 1 to 19 and 22, or the use of a fibre prepared according to the method according to any one of claims 27 to 32, comprising the steps of

- (a) forming a fibrous bond comprising said fibres, and
- (b) bonding the fibrous web.

34. (Original) A method according to claim 33, wherein the fibres are oven-bonded at a temperature of 130 to 150 °C.

35. (Previously Presented) A fibre according to claim 1, wherein the fibre crystallinity of at least 50 % is achieved by:

- iv) a draw ratio of at least 1:1.5; or
- v) the polyolefin polymer being a nucleated polymer.

36. (Previously Presented) A fibre according to claim 1, wherein the spin finish is an external spin finish.